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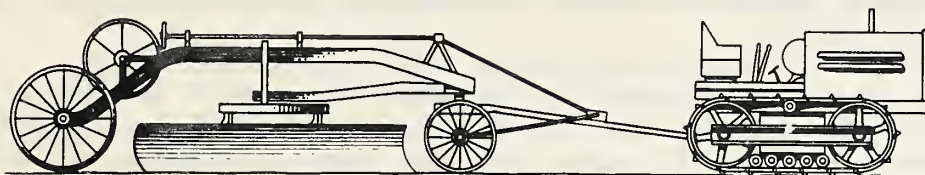
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# CONSTRUCTION



## HINTS

UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE  
WASHINGTON, D. C.

Vol. 5

January, 1939

No. 1

H A P P Y   N E W   Y E A R

This is the first issue for the year 1939.

The usual publication schedule will no longer be followed, but an attempt will be made to send out one issue each month. No special date will be set, but the "Hints" will be published "if and when" a sufficient amount of material is received.

If you see anything published in Construction Hints about which you are better informed, do not hesitate to call it to the attention of the Editor and furnish him with the later or better information so that it may be published.

This magazine is now, and always has been, a magazine for the field men. At least 90% of the material published during the last four years has been contributed. Keep up the good work - and keep CONSTRUCTION HINTS alive.

*Harold L. Friend*  
HAROLD L. FRIEND  
Editor

(over)

MOTOR CHANGE FOR MODEL T-16 1935 GMC TRUCKS  
T. P. Flynn, Senior Equipment Engineer, R-6

On the Siskiyou Forest, under the direction of construction superintendent Don Cameron and supervising mechanic Clyde Wills, several re-claimed Chevrolet motors have been installed in T-16 model GMC dump trucks. Some of these installations have been in use now for some time, and this replacement has proved to be much more satisfactory and economic than the original GMC motors.

The metals or materials in the GMC motors seem to be inferior to those in the Chevrolet motors, and particularly the GMC crankshafts and motor blocks are too soft. Also, for some reason or another all GMC motor parts are much more expensive than Chevrolet parts, and generally it seemed like throwing good money after bad to try to keep up this model of GMC motor, so the above combination of circumstances decided in favor of the Chevrolet motor installations which have proved successful. Following is the procedure for Chevrolet motor installations as described by Supervising Mechanic Wills:

1. Secure a reclaimed or salvaged Chevrolet motor complete with flywheel, clutch and housing. The GMC transmission, which is the same as the Chevrolet, is bolted to the Chevrolet bell housing, and this assembly is then ready to be installed on the truck.
2. To prepare the GMC truck frame for the Chevrolet motor it is necessary to remove the front and rear cross members, then swing the motor in place and bolt the front universal joint. The motor is then spaced so as not to crown the center propeller shaft bearing.
3. Install Chevrolet rear engine support, part No. 592368 to line up with the hold-down bolt holes in the rear of the motor. This engine support part can be arc welded to the truck frame.
4. The next step is to install the Chevrolet front cross member, part No. 373076. This is done in the same manner as the rear engine support, and this part is to be aligned with the holes in the front engine mounting plate and then arc welded to the truck frame.
5. Install Chevrolet oil pressure gauge 858388 in place of the GMC oil pressure gauge.
6. A notch may be cut and proper clearance provided in the foot boards for the Chevrolet starter pedal.
7. Radiator hood and other minor parts in the controls can be assembled and installed in their proper position.

It is our opinion that the operating performance of the Chevrolet motor in the hilly country is more satisfactory than the GMC motor.

## RECLAIMING ROCK CRUSHER JAWS

Morris N. Brown  
Supervising Mechanic  
Idaho National Forest  
Region 4

Any Forest operating a rock crusher can reclaim worn out crusher jaws. I have been doing it for three winters now, and find it a success.

Use Stooddy or Hascrome hard rod with the electric arc. For 3/16 rod use from 225 to 250 amps at 40 volts. Elevate the jaw about 15 to 20°. Start the bead at the inside edge of the worn part and travel out to the bottom edge of the jaw. The 15° the edge of the jaw is raised will help the welder to run a heavy bead about 1" wide and 1/2" or better high. Alternate the beads across the face of the jaw. It is very important that the bead be run from the inside out, on account of warping.

The cost of hard rod will vary, but the cost of rod, labor, and welder will not run over 1/4 to 1/3 the price of a new set of jaws, and the jaws will wear just as long.

Region 4 will furnish further details if desired.



### REPAIRING SHEEPSFOOT ROLLERS

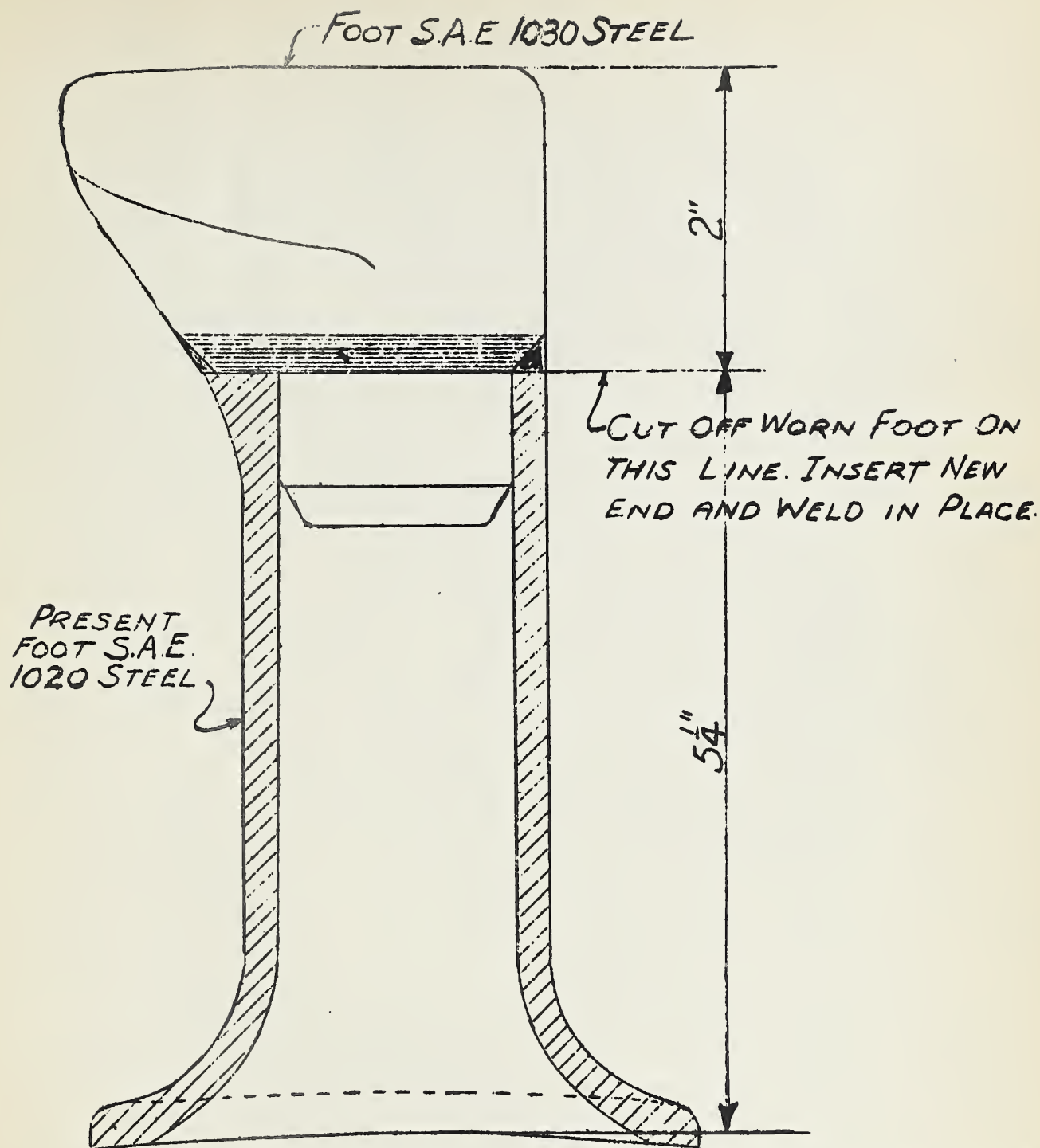
The Blaw-Knox Division has developed a greatly simplified method of renewing worn out tips of the feet on Blaw-Knox Sheepsfoot Tamping Rollers.

This is shown on the attached sketch, page 5. The worn out foot is simply burned off as shown and the shank of the new tip is inserted into and welded to the hollow shaft of the old foot.

Heretofore it was necessary to burn the entire old foot off the drum preparatory to replacing a worn out foot, very often resulting in serious damage to the drum in that holes were burned in the plate, weakening the drum and causing leakage. It was also found difficult to weld on the new feet at these weakened spots. The new scheme is quicker, cheaper and better.

The price of the new tip in any quantity desired is .45 each, f.o.b. factory Blawnox, Pennsylvania, Pittsburgh Shipping District.

The Winter months present a splendid opportunity to recondition your rollers - and very economically with this new scheme.



METHOD OF RENEWING END  
OF TAMPING FOOT.  
ON  
BLAW-KNOX SHEEPSFOOT TAMPING ROLLERS

FORM No. 1651

